

		BASE COUNT	432 a	491 c	458 g	357 t
	ORIGIN					
HS272L161	HS272L161	1738 bp mRNA	linear	PRI 21-APR-1999		
LOCUS	Human gene isolated from PAC 272L16; chromosome 1, similar to calcium/calmodulin dependent protein kinases.					
DEFINITION						
ACCESSION	AL049688					
VERSION	AL049688.1					
KEYWORDS	GI:4678721					
SOURCE	Homo sapiens					
ORGANISM						
	Bukurota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.					
REFERENCE	1 (bases 1 to 1738)					
AUTHORS	Rhodes,S.					
TITLE	Direct Submission					
JOURNAL	Submitted (21-APR-1999) E-mail contact: humquery@sanger.ac.uk					
COMMENT	This sequence was generated from cDNA clones isolated using 9 sequence from the bacterial clone 272L16 (AL02375), and EST data. The EST sequences listed match this sequence with an identity of at least 95% between the coordinates shown. Further information can be found at <a href="http://www.sanger.ac.uk/HGP/char1/">http://www.sanger.ac.uk/HGP/char1/</a> Partial, experimentally determined gene.					
SANGER CENTRE	Centre name: dJ272L16.C1..1.					
LOCATION/QUALIFIERS						
1..1738						
/organism="Homo sapiens"						
/db_xref="taxon 9606"						
/chromosome="1"						
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CDS						
/codon_start=3						
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/db_xref="GI:4678722"						
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exon						
/number=1						
exon						
/number=107						
misc_feature						
/note="matches EST AT215131 from clone IMAGE:1925595"						
exon						
/number=1						
exon						
/number=2						
exon						
/number=3						
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exon						
/number=9						
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/note="matches EST AA351937"						
exon						
/number=10						
exon						
/number=11						
exon						
/number=12						
misc_feature						
/note="matches EST R05661 from clone 235500"						
exon						
/number=13						

Qy 301 LysSerLysIlePheAlaPheAsnAlaAlaValValIleIleGlyLeu 320  
 Db 918 AAGACAAAGTGAGGCCAACCTCAACCCACGCTGGTGCACATAGGAAAGCTA 977  
 Qy 321 HisMetAspLeuIleSerProGluValAlaGluSerArgProProGluThr 340  
 Db 978 CACATGAACTTCAGAGCCGAGCAGCTCGCCAGAGTGAGANACGCCCCTGAACCT 1037  
 Qy 341 GluAlaSerGluIleSerArgProSerSerProGluIleThrGluAlaProVal 360  
 Db 1038 CAAGGCTAGAAGAACCTCAACGCTTCAGCTTACGATCACCCACGGGACCTTC 1097  
 Qy 361 LeuAspHisSerValAlaLeuProIleLeuProCysGlnNleClyArgArg 380  
 Db 1098 CTGGACCACAGTAGCATTCCTGCCGACCCATTAACTCCGACCTGGCCGCC 1157  
 Qy 381 ProThrAlaProGlyLeuArgSerLeuAsnCysLeuAlaValAsnGlySerLeuHisIleSer 400  
 Db 1158 CCCACTGCCCTGCGGAGGTTCCAGCTGCTGCTCATATGCG 1217  
 Qy 401 SerSerLeuValProLeuIleGlySerLeuAlaIleAspIleProCysGlyCysSerSer 420  
 Db 1218 AGCACCCGTGCTGCCATGCGCATCGAGGTTCCCTGACCCCCGGCCCTGGGTGCGGCC 1277  
 Qy 421 SerCysLeuAsnIleGlySerIleGlySerGlySerGlySerGlySerLeuLeu 440  
 Db 1278 AGCTCCCTGAACTGGACCATGGACAAAGGAAAGCTCCCTGACCCACACTCTCC 1337  
 Qy 441 LysLysAlaAsnLysGlnAsnPhenylSerGluValMetValProValLysAlaSer 460  
 Db 1338 AAAAGGGCAACAAAAGCAAGACTTAAGTCGAGGTCTGGTACCGTTAACCCAGT 1397  
 Qy 461 GLYSerSerHisCysArgIleGlyIleGlySerGlyValCysIleIleMet 476  
 Db 1398 GCGAGCTCCCTGCGAGGGCAACTGGCCAGGGCAACTGGAGCTCTCTCATATG 1445

KW Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;  
 KW peripheral nervous system; neuropathy; central nervous system; CNS;  
 KW Alzheimer's; Parkinson's disease; Huntington's disease; haemotactic;  
 KW amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;  
 KW chemoattractant; thrombolytic; drug screening; arthritis; inflammation;  
 KW leukaemia.

XX

OS HOMO Sapiens.

XX WO200153312 Al.

PN XX

PD XX

26-JUL-2001.

PF XX

26-DEC-2000; 2000WO-US34263.

XX PR XX

21-JAN-2000; 2000US-0488715.

PR 25-APR-2000; 2000US-0522317.

PR 09-JUL-2000; 2000US-0598042.

PR 19-JUL-2000; 2000US-0650332.

PR 03-AUG-2000; 2000US-0653450.

PR 14-SEP-2000; 2000US-0662191.

PR 19-OCT-2000; 2000US-0693016.

PR 29-NOV-2000; 2000US-0727344.

XX PA (HYSE-) HYSEO INC.

XX Tang YT, Liu C, Asundi V, Chen R, Ma Y, Oian XB, Ren P, Wang D;

PI Wang J, Wang Z, Wehtman T, Xu C, Xue AJ, Yang Y, Zhang J;

PI Zhao QA, Zhou P, Goodrich R, Ormanac RT;

XX DR WPI: 2001-44225/47.

XX N-PSDB: AAI0703.

PT Novel nucleic acids and polypeptides, useful for treating disorders  
such as central nervous system injuries.

XX PS Example 2: SEQ ID NO 6478: 10078PP: English.

XX The invention relates to human nucleic acids (AAI57798-AAI61369) and  
CC the encoded polypeptides (AAW1864-AAW4213) with nootropic,  
CC immunosuppressant and cytostatic activity. The polynucleotides are useful  
CC in gene therapy. A composition containing a polypeptide or polynucleotide  
CC of the invention may be used to treat diseases of the peripheral nervous  
CC system, such as peripheral nervous injuries, peripheral neuropathy and  
CC localised neuropathies and central nervous system diseases, such as  
CC Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic  
CC lateral sclerosis and Shy Drager Syndrome. Other uses include the  
CC utilisation of the activities such as: Immune system suppression,  
CC Activin/inhibitin activity, chemotactic/chemokinetic activity, haemostatic  
CC and thrombolytic activity, cancer diagnosis and therapy, drug screening,  
CC assays for receptor activity, arthritis and inflammation, leukaemias and  
CC C.N.S disorders.  
CC Note: The sequence data for this patent did not form part of the printed  
CC specification.

XX SQ Sequence 497 AA;

Query Match 100.0%; Score 2513; DB 22; Length 497;  
Best Local Similarity 100.0%; Pred. No. 5.1e-220;  
Matches 476; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MGRKEBDDCSSKKQT\*NIKRTFMEVIGSAGFSVFLVKORLTGFLALKCIIKKSPAF 60  
Db 22 NGREEDDCSSKKQT\*NIKRTFMEVIGSAGFSVFLVKORLTGFLALKCIIKKSPAF 81

QY 61 RDSSLNEIAVLLKIKHENIVTLLDIEVSTTHYLQVLYSGGFLDRILRGVYTKDA 120  
Db 82 RDSSLNEIAVLLKIKHENIVTLLDIEVSTTHYLQVLYSGGFLDRILRGVYTKDA 141

QY 121 SLVTOQVLSAVKLYRENGIVHDLKPNLTYLTPPEENSKIMTDFGLSKMEQNGIMSTPC 180  
Db 142 SLVTOQVLSAVKLYRENGIVHDLKPNLTYLTPPEENSKIMTDFGLSKMEQNGIMSTPC 201

Qy	181	GTPGTVAPEVLAQKPSKAYDCMSIGVITLUCGPPVETEKSLEKIKSYEFBS 
Db	202	GTPGTVAPEVLAQKPSKAYDCMSIGVITLUCGPPVETEKSLEKIKSYEFBS 
Qy	241	PPNDOSAKDPTCHLLKDPERTCALKSHPMIDGITALHRDTPSVSIQONPA 
Db	262	PPNDOSAKDPTCHLLKDPERTCALKSHPMIDGITALHRDTPSVSIQONPA 
Qy	301	KSKWROAFNAAYVHDKLHMLHSPTCPYEVENRPPCOASPTSRPSSPPTITAPY 
Db	322	KSKWROAFNAAYVHDKLHMLHSPTCPYEVENRPPCOASPTSRPSSPPTITAPY 
Qy	361	LDSHVALPALTOLPCOHGREPTAGRSALCYNGSHISSSLVPHQGSAAAGPCCCS 
Db	382	LDSHVALPALTOLPCOHGREPTAGRSALCYNGSHISSSLVPHQGSAAAGPCCCS 
Qy	421	SCLNIGSKGSYSCTSEPTLLKANKQNPKSETAVPYKAASSHCRAQTCVCLIM 
Db	442	SCLNIGSKGSYSCTSEPTLLKANKQNPKSETAVPYKAASSHCRAQTCVCLIM 

**RESULT 2**

ID AA160703 standard; cDNA: 1956 bp  
 XX  
 AC AA160703:  
 XX  
 DR 22-OCT-2001 (first entry)  
 XX  
 DE Human polynucleotide SEQ ID NO 4692.  
 XX  
 KW Human; nonotropic; immunosuppressant; cytostatic; gene therapy; cancer;  
 peripheral nervous system; neuropathy; central nervous system; CNS;  
 Alzheimer's; Parkinson's disease; Huntington's disease; Shy-Drager Syndrome;  
 amyotrophic lateral sclerosis; cheiropathic; chemokinetic activity; haemostatic;  
 chemokinetic; thrombolytic; drug screening; arthritis; inflammation;  
 leukaemia; 59.  
 XX

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OS Homo sapiens.  
 XX  
 PN WO200153312-A1.  
 XX  
 PD 26-JUL-2001.  
 XX  
 PF 26-DEC-2000; 2000WO-US34263.  
 XX  
 PR 21-JAN-2000; 2000US-0488725.  
 PR 25-APR-2000; 2000US-0552317.  
 PR 09-JUL-2000; 2000US-0598042.  
 PR 19-JUL-2000; 2000US-0620312.  
 PR 03-AUG-2000; 2000US-0653150.  
 PR 14-SEP-2000; 2000US-0662191.  
 PR 19-OCT-2000; 2000US-0693036.  
 PR 29-NOV-2000; 2000US-0727344.  
 XX  
 PA (HTEC-J HTEC INC.  
 PI Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;  
 Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J,  
 Zhao QA, Zhou P, Goodrich R, Drmanac RT;  
 XX  
 WPI: 2001-442253/47.  
 DR P-PSDB; AA#41547.  
 XX  
 Pr Novel nucleic acids and polypeptides, useful for treating disorders  
 such as central nervous system injuries -  
 XX  
 PS Claim 1; SEQ ID NO 4692; 10078pp; English.  
 XX  
 CC The invention relates to human nucleic acids (AA157798-AA161369) and  
 the encoded polypeptides (AM38612-AM42213) with nonotropic,  
 immunosuppressant and cytostatic activity. The polynucleotides are useful  
 in gene therapy. A composition containing a polypeptide or polynucleotide  
 of the invention may be used to treat diseases of the peripheral nervous and  
 central nervous systems, such as peripheral nervous injuries, peripheral neuropathy and  
 localized neuropathies and central nervous system diseases, such as  
 Alzheimer's disease, Huntington's disease, amyotrophic  
 lateral sclerosis and Shy-Drager Syndrome. Other uses include the  
 utilisation of the activities such as: Immune System suppression,  
 Activin/inhibin activity, chemokinetic/chemokinetic activity, haemostatic  
 and thrombolytic activity, cancer diagnosis and therapy, drug screening,  
 assays for receptor activity, arthritis and inflammation, leukaemias and  
 C.N.S. disorders.  
 CC Note: The sequence data for this patent did not form part of the printed  
 specification.  
 XX  
 SQ Sequence 1956 BP: 474 A: 559 C: 508 G: 414 T: 1 Other:  
 Query Match 68.9%; Score 1687; DB 22; Length: 1956;  
 Best Local Similarity 99.9%; Pred. No. 0;  
 Matches 1787; Conservative 0; Mismatches 2; Indels 0; Gaps 0;  
 QY 12 CTAAAGCAGGATTCCTCCGAGTCCCTGGCATCTCAAGAGCTCACTCTGGAGGCAAT 71  
 DB 7 CTAAAGCAGGATTCCTCCGAGTCCCTGGCATCTCAAGAGCTCACTCTGGAGGCAAT 66  
 QY 72 GGATCGAAAGGAGAAGATGACTGGACATTCCTGGAGAAGACGCCAACATCGGAA 131  
 DB 67 GGTCGAAAGGAGAAGATGACTGGACATTCCTGGAGAAGACGCCAACATCGGAA 126  
 QY 132 AACCTCATTTTATGAGCTTCGGATCAGGAGCTCTCAAGAATTTCCGTGTA 191  
 DB 127 AACCTCATTTTATGAGCTTCGGATCAGGAGCTCTCAAGAATTTCCGTGTA 186  
 QY 192 CCAGAACACTCTGGAGGCTTGCCTGAATGCTCATCAAGAGACCTGGCTTCG 251  
 DB 187 GCAGAACACTGGAGGCTTGCCTGAATGCTCATCAAGAGCTTCGCTTCG 246  
 QY 252 GGACAGCAGGAGCTGGAGAATGAGCTTCGGAGGCTTGCCTGAATGCTCATCAAGAGCTTCGCTTCG 311  
 DB 247 GGACAGCAGGAGCTGGAGAATGAGCTTCGGAGGCTTGCCTGAATGCTCATCAAGAGCTTCGCTTCG 306

Qy	312	GACCTGGAGGACATCTATAGAGCACCAACCCACTACTCGTCATGCCAGCTGTTC	371	AAAGGCCAACAAAAACAGAACTCAAGTCCAGGTCAATGGTACCCACTTAAGCCAGTGCG	1451
Db	307	GACCTGGAGGACATCTATAGAGCACCAACCCACTACTCGTCATGCCAGCTGTTC	366	AAAGGCCAACAAAAACAGAACTCAAGTCCAGGTCAATGGTACCCACTTAAGCCAGTGCG	1446
Qy	372	TGTGGGGAGCTTTGACGGATACTGGCGGGTTCTACAGAGAAGATGCCAG	431	CAGGCCCCACTSGGGCAGGGAGACTGGAGTCGTCATATGANTTCGGGCC	1511
Db	367	TGTGGGGAGCTTTGACGGATACTGGCGGGTTCTACAGAGAAGATGCCAG	426	Db 1447 CAGGCCCCACTSGGGCAGGGAGACTGGAGTCGTCATATGANTTCGGGCC	1506
Qy	432	TCTGGATTCAGCGAGTGTGCGACAGAGAAATTCTAATGAGATGGCATGCCA	491	Qy 1512 TGTGGCTATGTCATCNSCAATTTGAGAGACATATTCACACTCTCCCTTCAAACTT	1571
Db	427	TCTGGATTCAGCGAGTGTGCGACAGAGAAATTCTAATGAGATGGCATGCCA	486	Db 1507 TGTGGCTATGTCATCNSCAATTTGAGAGACATATTCACACTCTCCCTTCAAACTT	1566
Qy	492	CAGAGCTTAAGCCGAAAACCTGGTACCCCTGACCTGAGGAACTCAAGATCAT	551	Qy 1572 GTGTCATTCGCAGAGCAGGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG	1631
Db	487	CAGAGCTTAAGCCGAAAACCTGGTACCCCTGACCTGAGGAACTCAAGATCAT	546	Db 1567 GGTGTCATTCGCAGAGCAGGGAGGAGGAGGAGGAGGAGGAGGAGGAG	1626
Qy	552	CAGCAGCAGCTGGCTCTCCAGAGAACCCATCACCGCTTC	611	Qy 1632 TTTCGGCCAGAGCAGGACCCCTGAGGAGGAGGAGGAGGAGGAGGAGGAG	1691
Db	547	GATCACTGACTTGGCTCTCCAGAGAACCCATCACCGCTTC	606	Db 1627 TTTCGGCCAGAGCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG	1686
Qy	612	GACCCAGGGTACCGGGCCAGAACTGCTGGCCAGAACCTACAGAGGCTGTGA	671	Qy 1692 CGAGGCCAAGCCTAGAGCCATGAGGCTGTGAGCTGTGAGGAGGAGGAGGAG	1751
Db	607	GACCCAGGGTACCGGGCCAGAACTGCTGGCCAGAACCTACAGAGGCTGTGA	666	Db 1687 GGAGGCCAAGCCTAGAGCTGTGAGGCTGTGAGCTGTGAGGAGGAGGAGGAG	1746
Qy	672	TTGGTGGTCCATCGGGTACATCACCTGCTGGAATACCCCTCTATGA	731	Qy 1752 GGTCAAGGTCTCCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	1800
Db	667	TTGGTGGTCCATGGGTATCACCTGCTGCTGCTGCTGCTGCTGCTGCTG	726	Db 1747 GGTCAAGGTCTCCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	1795
Qy	732	AGAAACGGAGCTTAAGCTTTCAGAGATCAAGCTTACATCACCTGCTGCTG	791		
Db	727	AGAAACGGAGCTTAAGCTTTCAGAGATCAAGCTTACATCACCTGCTGCTG	786		
Qy	792	ATTCGGGATGACATTCTGACTTCAGCCAGGACTTTATTCGACTGCTGCTG	851		
Db	787	ATTCGGGATGACATTCTGACTTCAGCCAGGACTTTATTCGACTGCTGCTG	846		
Qy	852	TCCGAACTGGGCTAACCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	911		
Db	847	TCCGAACTGGGCTAACCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	906		
Qy	912	GGCCCTTCACTGGGACATTAACCTGCTGCTGCTGCTGCTGCTGCTGCTG	971		
Db	907	AGCCCTTCACTGGGACATTAACCTGCTGCTGCTGCTGCTGCTGCTGCTG	966		
Qy	972	GAGCAAGTGGAGCAGCTCAAGCAGCTGCTGCTGCTGCTGCTGCTGCTG	1031		
Db	967	GAGCAAGTGGAGCAGCTCAAGCAGCTGCTGCTGCTGCTGCTGCTGCTG	1026		
Qy	1032	CATGAACTTGCACAGCCGGCTCCCGAGCTGAGCTGAGCTGAGCTGAG	1091		
Db	1027	CATGAACTTGCACAGCCGGCTCCCGAGCTGAGCTGAGCTGAGCTGAG	1086		
Qy	1092	AGCCCTGAGAACTCTAGACCCAGCTCCCTGAGATCACATCACCTGCTGCT	1151		
Db	1087	AGCCCTGAGAACTCTAGACCCAGCTCCCTGAGATCACATCACCTGCTGCT	1146		
Qy	1152	GGACCACTGGTACGACTCTCCCGAGCCCTTACCCCTGAGCTGAGCTGAG	1221		
Db	1147	GGACCACTGGTACGACTCTCCCGAGCCCTTACCCCTGAGCTGAGCTGAG	1206		
Qy	1212	CACTGCCCTGGTGGAGTCCTCCCGAGCCCTTACCCCTGAGCTGAGCTGAG	1271		
Db	1207	CACTGCCCTGGTGGAGTCCTCCCGAGCCCTTACCCCTGAGCTGAGCTGAG	1266		
Qy	1272	CAGCTGGTGGCCCTACATGAGGCTGGCTGGCTGGCTGGCTGGCTGGCT	1331		
Db	1267	CAGCTGGTGGCCCTACATGAGGCTGGCTGGCTGGCTGGCTGGCTGGCT	1326		
Qy	1332	CTGGCTGAACTGGAGAAAGGAAAGTCCCTACTGCTGAGCCACACTCTCAA	1391		
Db	1327	CTGGCTGAACTGGAGAAAGGAAAGTCCCTACTGCTGAGCCACACTCTCAA	1386		